

What is Claimed:

1. A method for duplicating information in an IP packet with the sole intention of using it to partially or completely reverse the effect of intermediate NATs, comprising the steps of:

Identifying parts of an IP packet that can be potentially modified by NATs;

Copying that information in its current form or copying it into a different format;

Inserting this information into an IP packet in a manner that keeps it protected from intermediate NATs.

2. The method of claim 1 wherein complete IP header and the transport layer header is inserted into the IP packet. Such a packet will have duplicate IP and transport layer headers or a duplicate IP or transport layer header.

3. The method of claim 1, wherein the duplicate information is inserted into the IP packets of the same connection in a manner that keeps it protected from intermediate NATs.

4. The method of claim 1, wherein the duplicate information is inserted into the IP packets of a different connection. In addition, there are identifiers inserted into the IP packets of both connections to correlate them.

5. A method for studying the effect of intermediate NATs with the sole purpose of using it to partially or completely reverse the effect of intermediate NATs, comprising the steps of:

Identifying parts of an IP packet that can be potentially modified by intermediate NATs;

Identifying parts of an IP packet from same or different connections that contain information before intermediate NATs modified it;

Generating a look-up table that signifies the effect of intermediate NATs on the IP packets of that connection.

6. A method for reversing partially or fully the effect of intermediate NATs based on a look-up table that signifies the effect of NATs on the IP packets of that connections.

7. The method of claim 6 wherein only the effect of NAT on the transport layer header is reversed.

8. The method of claim 6 wherein only the effect of NAT on the IP header is reversed.

9. The method of claim 6 wherein the effect of NAT on the transport layer data is reversed.

10. A method for correcting the information in outgoing IP packets so that they arrive in a state expected by the NATs.

11. The method of claim 10 where the IP header and/or the transport header of the outgoing packet is modified.

12. The method of claim 10 where the body of the outgoing packet is modified.